

Abstract

How do we learn and memorize has been a question in neurobiology for a long time. There have been numerous experiments to decipher the process of how information is processed, stored and retrieved by an organism. *C. elegans* has been used a model system to address several such questions, including our question: What is the molecular mechanism of learning and long term memory formation? What are the molecules involved and what the pathways for information processing and storage are? In this current work, we show a learning test to identify and quantify the learning in worms after training. We also show that the worms mutant in CREB show severely impaired learning. Using CHIP assays, single neuron ablation and bioinformatics analysis we plan to identify the molecules involved in long term memory formation.